



GARY R. HERBERT  
Governor  
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# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

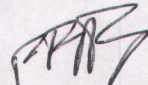
MICHAEL R. STYLER  
Executive Director


### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

## Minerals Inspection Report

Report Date: 08/25/2015

Reviewed 

Mine Name: Southwest #1	Permit Number: M/47/0103	Mine Status: Active
Operator Name: Red Leaf Resources	Inspection Date: 8/20/2015	Permit Fees: Paid
Inspector(s): A. Abate, Lynn Kunzler, McKay Tenney	Inspection Time: 10 AM	Bond Amount: \$3,776,000
Attendee(s): Jeff Hartley, James Patten, Hope Hornbeck, 	Weather: Clear 70s	Bond Escalation: 11/4/2015
Inspection Purpose: Inspection to discuss the seedmix, evaluate the topsoil piles, and discuss rare plants		Prior Inspection: 7/14/2015

### Conclusions and Recommendations

The Division will issue a directive to Red Leaf asking for updated information on the seed mix section of the mine plan and also updating Section 109.2 - on the conservation agreement related to the two species of rare plants: Grahams Penstemon and White River Beardtongue. No reseedling of the topsoil piles is necessary at this time as the weeds that have been identified may eventually be out-competed with more favorable vegetation.

Elements of Inspection		Evaluated & Commented	Enforcement
1.	<i>Permits, Revisions, Transfer, Bonds</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Red Leaf has temporarily suspended moving forward with EPS capsule construction. Red Leaf is using this time to do some additional engineering analysis taking into account current market conditions related to the price of oil. This process is expected to take 18-24 months.			
2.	<i>Public Safety (shafts, adits, trash, signs, highwalls)</i>	<input type="checkbox"/>	<input type="checkbox"/>
3.	<i>Protection of Drainages/Erosion Control</i>	<input type="checkbox"/>	<input type="checkbox"/>
4.	<i>Deleterious Material</i>	<input type="checkbox"/>	<input type="checkbox"/>
5.	<i>Roads (maintenance, surfacing, dust control, safety)</i>	<input type="checkbox"/>	<input type="checkbox"/>
6.	<i>Reclamation</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Several small stockpiles of topsoil have been salvaged and stored alongside the grading work that has occurred for the initial construction phase of the project. There does not appear to be a significant amount of topsoil that can successfully reclaim the areas already disturbed. The topsoil was seeded in accordance with the prescribed seed mix for temporary stockpiles in the NOI. The seeding was done in early September 2014.			
7.	<i>Backfilling/Grading (trenches, pits, roads, highwalls, shafts)</i>	<input type="checkbox"/>	<input type="checkbox"/>
8.	<i>Soils</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The purpose of this visit was to have a Division biologist evaluate the top soil piles to determine the types of vegetation grown and how that compares to what was proposed in the interim top soil pile seed mix. Red Leaf is in receipt of a seed mix from the Division of Wildlife Resources that is favorable to big game while at the same time will control erosion. The goal is to enhance big game habitat and encourage them to forage in the area. DWR is planning to do the seeding. The Division's position is that we are supportive of the big game seed mix as long as cheat grass and other invasive species are being controlled in the permit area.			
9.	<i>Revegetation</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
While it was determined that some invasive weeds were on the topsoil piles, the Division felt that reseedling or spraying may be premature at this time since the weeds sometimes show up initially after seeding but eventually get outcompeted and will start to die off.			
10.	<i>Other</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



The second issue discussed during the inspection was the finalized Conservation Agreement and Strategy for Graham's Beardtongue and White River Beardtongue (July 2014). These rare plants that have been identified as growing exclusively on oil shale outcrops. Section 109.2 of current mine plan should be updated to reflect the finalized conservation agreement and the steps that Red Leaf has undertaken to participate in the conservation process of these plants. Red Leaf has contracted with SWCA who has performed surveys of the plants. SWCA has identified locations within the SITLA areas leased to Red Leaf where the plants have been identified. An area on the Red Leaf property has been set aside as habitat; however, as part of the discussions from this field visit SWCA is proposing test plots to experiment with plantings. Some of those plots would include a native, undisturbed area; a reclaimed area, and a waste rock area. These experimental areas would provide valuable data showing which type of environment the plants respond the most favorably to. SITLA is a signatory to the 2014 Conservation Agreement for the two plants mentioned. SITLA has asked Red Leaf to voluntarily commit to setting up partial sections of their lease for conservation studies.

Inspector's Signature: \_\_\_\_\_

CC: John Blake, SITLA [jblake@utah.gov](mailto:jblake@utah.gov)

File: /nrwogmfs1/OGM/GROUPS/MINERALS/WP/M047-Utah/M0470103-Southwest#1/inspections/Insp-08202015.pdf





EPS Capsule excavation and floor



Lynn in the vegetation reference area examining the sunflowers.



Forage koshia identified in the vegetation reference area.



Vegetation reference area containing Bee plant.